

CLAIMS:

1. A needle protective device for use with a percutaneous needle comprising:
 - a) a needle guard slidably mounted on a percutaneous needle said needle having a proximal end and sharpened distal end, said needle having at least one change in profile formed upon the length thereof, said guard having a proximal end and a distal end, said guard containing a moveable needle trap that is transitional between a first retracted configuration wherein said trap is oriented against said needle and a second operative configuration wherein said needle trap traps said sharpened distal end of said needle; and
 - b) a limiting apparatus formed upon said needle guard and engageable with said change in profile formed upon said needle for limiting the distance said needle guard slidably travels upon said needle, said limiting apparatus being operative to engage with said change in profile substantially simultaneously with when said needle trap transitions from said first retracted configuration to said second operative configuration.
2. The needle protective device of Claim 1 wherein said at least one change in profile comprises at least one recessed change in profile and said limiting apparatus is engageable with said at least one recessed change in profile.
3. The needle protective device of Claim 1 wherein said change in profile comprises at least one outwardly-bulging sidewall portion and that said limiting apparatus is engageable with said at least one outwardly-bulging sidewall portion.
4. The needle protective device of Claim 1 wherein said change in profile comprises a combination of at least one recessed change in profile and at least one outwardly-bulging sidewall portion and that said limiting apparatus is engageable with said at least one recessed change in profile and said at least one outwardly-bulging sidewall portion.
5. The needle protective device of Claim 1 wherein said change in profile comprises an elliptical abutment member having a first pair of opposed, outwardly-extending sidewalls formed relative said needle for engaging with said limiting apparatus and a second pair of opposed, recessed sidewall portions formed relative said needle.

6. The needle protective device of Claim 1 wherein said change in profile is integrally formed upon said cannula.

7. The needle protective device of Claim 1 wherein said change in profile comprises a crimp made upon said cannula.

8. The needle protective device of Claim 1 wherein when said needle trap transitions from said first retracted configuration to said second operative configuration, said limiting apparatus subsequently engages with said change in profile.

9. The needle protective device of Claim 1 wherein when said limiting apparatus is operative to engage with said change in profile, said needle trap subsequently transitions from first retracted configuration to said second operative configuration.

10. The needle protective device of Claim 1 wherein said change in profile comprises at least one recessed change in profile and at least outwardly-bulging sidewall portion.

11. The needle protective device of Claim 1 wherein said change in profile comprises a non-annular shape.

12. The needle protective device of Claim 2 wherein said at least one recessed change in profile comprises a flattened recess formed upon said needle.

13. The needle protective device of Claim 1 wherein said limiting apparatus is engageable with a portion of said change in profile.

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